

ABSTRACT

A system is provided for monitoring rotating machinery having a shaft and circumferentially disposed extensions rotatable with the shaft and spaced apart from one another. The system includes a plurality of proximeters positioned proximate to the rotating machinery and operable to measure and transmit resonant vibration frequency and amplitude data derived from a transit time between the individual rotating extensions, along with signal amplitude data, and a processor electrically coupled to receive the data and configured to correlate the data and thereby produce an assessment of operational health for the machinery. A method is also provided for monitoring rotating machinery, using the system of the invention.